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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,911	04/12/2004	Houng Joong Kim	A8319.0018/P018-A	2450

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WASHINGTON, DC 20037-1526

EXAMINER
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COMAS, YAHVEH

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/821,911	<b>Applicant(s)</b> KIM ET AL.	
	<b>Examiner</b> Yahveh Comas	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10219772.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/9/2004</u> <u>3411204</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement filed 4/12/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the height of the step portion being bigger than a gap between the magnetic pole teeth constituting the opposed portion must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13, 15, 18 and 21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 13, applicant doesn't disclose a first member including a first magnetic pole and second magnetic pole each of said first and second magnetic poles comprising a plurality of magnetic pole teeth. The first member includes an upper or first magnetic pole and a second or lower magnetic pole, as show in fig 2a, but said

magnetic pole doesn't provide a plurality of teeth as claimed, therefore the specifications doesn't provide a full, clear and concise description of said feature.

Regarding claim 15, 18 and 21 specifications doesn't provide a full, clear and concise description of the height of the step portion being bigger than a gap between the magnetic pole teeth constituting the opposed portion. Therefore no patentable weight has been giving to this feature.

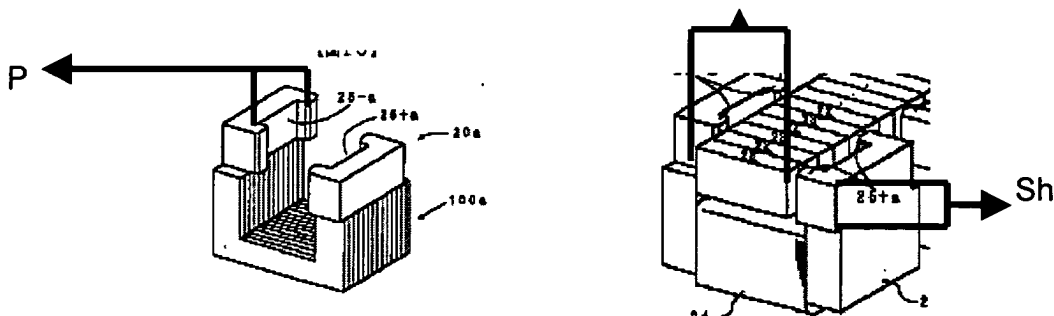
### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 13-14, 16-17, 19-20 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka JP Patent No. 10327571  $P_W$



Regarding claims 13 and 16, Tanaka discloses a first member (100a) including a magnetic body around which a coil is wound, wherein the first member (100a) includes a first magnetic pole (25+a) and a second magnetic pole (25-a), each of the first and second magnetic poles comprise a plurality of magnetic pole teeth (P), the magnetic pole of the first magnetic pole and the magnetic pole teeth (P) of the second magnetic pole are opposed to each other to form a plurality of opposed portions, magnetic pole surface of the magnetic pole teeth constituting the opposed portions are alternately located in the adjacent opposed portions (see fig. 5). A second member (21) comprising a flat plate comprising a permanent magnet (22) is located between the magnetic teeth (P) of the first and second magnetic pole, each of the magnetic has a step portion, and the width (40) of the step portion is smaller than that of the permanent magnet (22). Also a single coil (24) is wound around the magnetic body and the height of the step portion (Sh) is smaller than the width of the permanent magnet.

Regarding claims 16-17, 19-20 and 22, Tanaka discloses a first member (100) including a magnetic body around which a coil is wound, and a second member (21) comprising a flat plate comprising a permanent magnet (22), wherein the first member (100) includes a first magnetic pole (20a) and a second magnetic pole (20b), the first magnetic pole (20a) comprises a first magnetic pole tooth (25+a) disposed on one side of the second member (21), and a second magnetic pole tooth (25-a) disposed on the other side of the second member (21), the first and second magnetic pole teeth being alternately disposed on the first magnetic pole, the second magnetic pole (20b) comprises a first magnetic pole tooth (25+b) disposed on one side of the second

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member (21), and a second magnetic pole tooth (25-b) disposed on the other side of the second member (21), the first and second magnetic pole teeth being alternately disposed on the first magnetic pole, the magnetic pole tooth of the first magnetic pole (20a) on the one side of the second member (21) and the magnetic pole tooth of the second magnetic pole on the other side of the second member (21) are opposed to each other via a first gap, the magnetic pole tooth of the first magnetic pole (20a) on the one side of the second member (21) and the magnetic pole tooth of the second magnetic pole on the other side of the second member (21) are opposed to each other via a second gap, the magnetic pole tooth (25a) disposed on the first magnetic pole or the magnetic tooth disposed on the second magnetic pole has a step portion (40), and the width of the step portion is smaller than that of the permanent magnet (Pw). Also the height (Sh) of the step portion is smaller than the width of the permanent magnet.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 15, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka JP Patent No. 10327571 A.

Tanaka discloses the claimed invention except for the height of the step portion being bigger than a gap between the magnetic pole teeth constituting the opposed portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an step portion with a height bigger than a gap between the magnetic pole teeth constituting the opposed portion, in order to optimize the flux path between the opposed portions and at the same time the performance of the machine. Therefore providing a step portion with a height bigger than a gap between the magnetic pole teeth constituting the opposed portion is within the ordinary skill in the art since has been held that merely optimized known dimensions is within the ordinary skill in the art. (See *In re Aller*, 105 USPQ 233.)

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yahveh Comas whose telephone number is (571) 272-2020. The examiner can normally be reached on 8am-5pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



KARL TAMAI  
PRIMARY EXAMINER

YC